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DEPARTMENT OF HEALTH
HOLLIS S. INGRAHAM, M.D.
COMMISSIONER

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Dr. Joshua Lederberg
Department of Genetics
Stanford University School of Medicine
Palo Alto, California 94304

Dear Dr. Lederberg:

Your letter to the Editor of *SCIENCE* concerning the possibility of programming cells is of great interest to us. We too have been concerned about the philosophic aspects of such a future possibility.

We are now able to grow normal lymphoblastic cells from the human. These normal cells are very primitive and can be seen to differentiate into several kinds of adult forms. In addition, these cells have retained, over a period of more than one year, the ability to produce various immunoglobulins. As a matter of fact, we are now able to stimulate the cells to produce specific antibodies. We can grow several hundred grams of such cells each week in the laboratory at the present time and probably should be able to grow several kilograms of such cells when our cell plant is completed next spring.

The purpose of my letter is to indicate that those of us interested in the culture of normal malignant human cells are observing the first practical steps toward the provision of environment which may permit the actual manipulation of undifferentiated human cells.

Sincerely yours,

George E. Moore, M.D.

GEM:maw